Prediction Of Product Purchase Using Social Network Advertisement.

Dipti Bagal
Harshada Deokar

Under Guidance Of

Prof.Khalate Y.R

October 22, 2019

Introduction

On Social Network There are number of advertisement which are coming continously.In that advertisement Product related advertisement also there.In Our Project we are going to Predict whether the product is purchase or not.There are Various Attributes which affects on this prediction.In simpler words we tell whether a user on Social Networking site after clicking the ad's displayed on the website,end's up buying the product or not. This could be really helpful for the company selling the product.

Problem Statement

"To Predict Product Purchase Or Not Using Social Network Advertisement."

Objectives

Prediction

To Detect the product Purchase or not.

Understanding

To Understand the effects of various attributes on Product purchase.

Comparison

To Compare various algorithms for better results.

Outcomes

Prediction of Product purchase using Social Network Ads dataset.

We get Accuracy,Precision,Recall,F1 score using Various classification Algorithms.

We can Compare Performance of Different Classification Algorithms with respect to our dataset.

We come to know that which model gives better result.

Data Preprocessing Done

Step 1:

Import Libraries

Step 2:

Import Dataset

Step 3:

Taking Care of Missing Data in Dataset

Data Preprocessing Done

Step 4:

Encoding Categorical Data

Step 5:

Spliting the Dataset into Training Set and Test Set.

Step 6:

Feature Scaling.

Dataset Used and its Link

Dataset

Social_Network_Ads

Link

https://www.kagal.com/rakeshrau/Social_Network_Ads

SRS

System interfaces

This System is provisioned to be built on the python framework which is highly flexible.

Hardware interfaces

Multicore processor required to perform fast calculations and decision making.

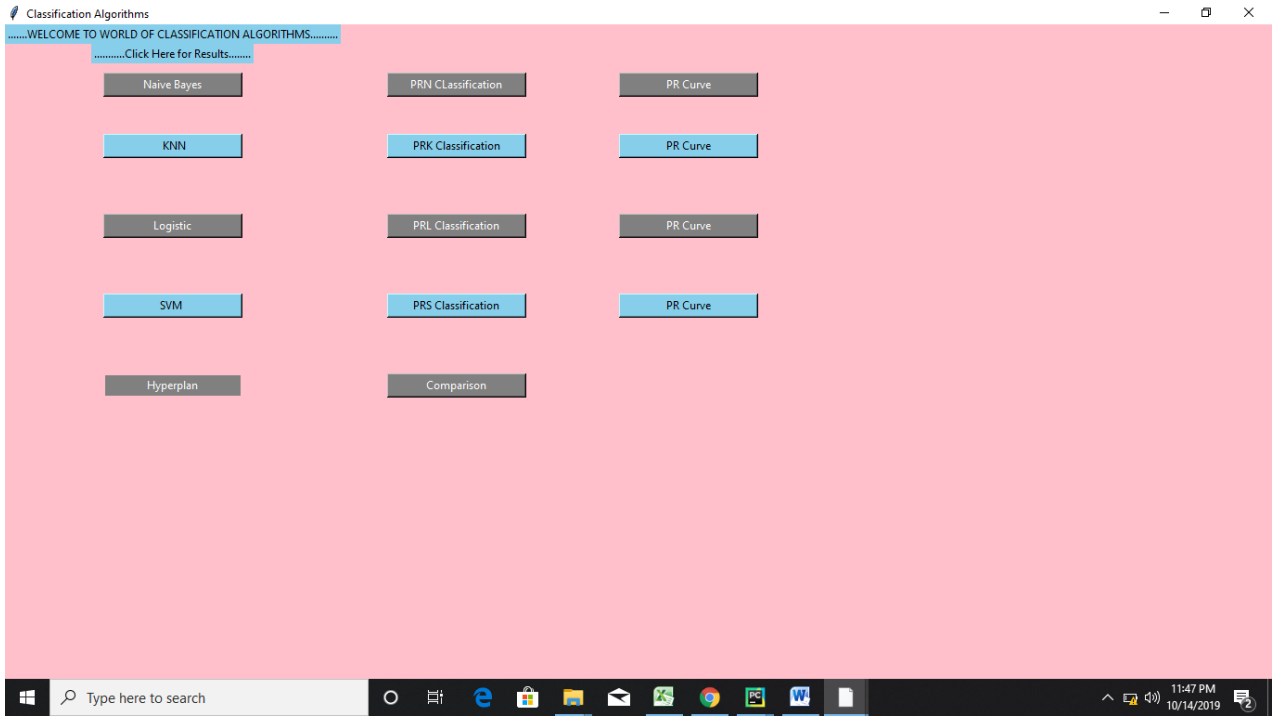
Software interfaces

Pycharm IDE,Python Interpreter(Anaconda Environment)

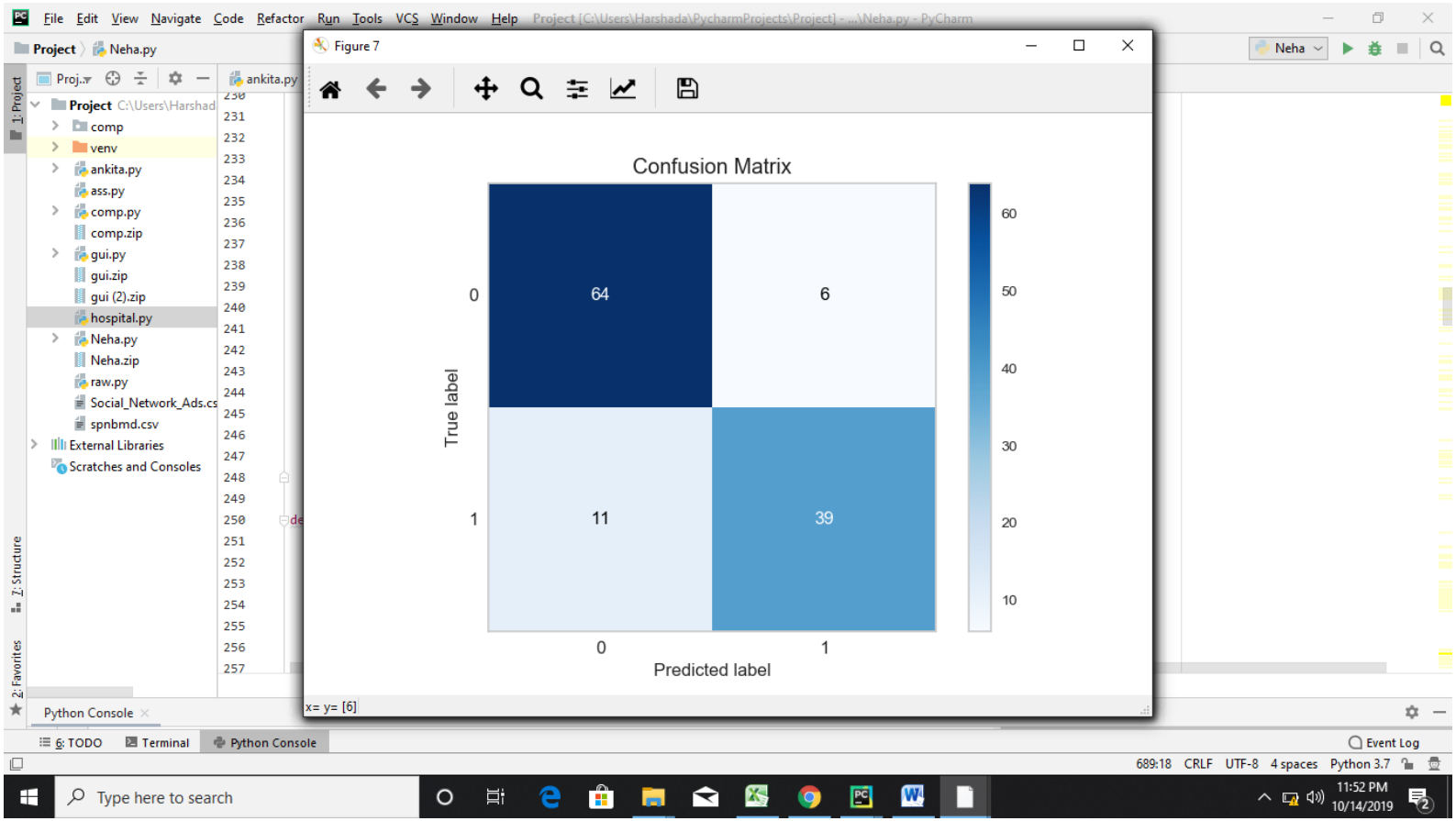
Classification Algorithms Used

- Naive Bayes
- KNN
- Logistic Regression
- Support vector Machine

Output Screens



Output Screens



Conclusion

In this way We can Predict Product purchase by using Advertisement which are continously coming on Social Network.In Our Project We use Social Network Advertisement Dataset.The attributes which affects on Product purchase are Gender,Age,and Estimated Salary.By appling various classification algorithms like Naive Bayes,KNN,Support Vector Machine, we conclude that Support vector machine Classification algorithm gives more accurate result.

References

Book:
Data Mining Concepts and Techniques.
By Jiawei Han, Micheline Kamber, Jian Pei.
Websites:
https://www.datacamp.com/community/tutorials/naive-bayes-scikit-learn
https://datatofish.com/matplotlib-charts-tkinter-gui
https://www.kaggle.com/rakeshrau/social-network-ads
https:// www.overleaf.com